



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BOTANICAL GAZETTE.

VOL. 3

APRIL, 1878.

No. 4

EUCALYPTUS GLOBULUS.—Having been led to raise the *E. globulus* from seed for experimental purposes, the last summer, the plant afforded opportunities for some quite interesting observations. This tree is not only remarkable for its rapid growth when young, but equally so for some curious eccentricities of character. To those familiar with the growing "Blue Gum," probably these observations are not new; but to the readers generally of the GAZETTE, they will prove interesting, as they certainly were to the writer. Sown in March, in a flower-pot in the sitting room, the seeds pushed up each a pair of bright red cotyledons. The young tree, even when of respectable height, say 15 feet, presents a crowd of specific differences, as species in plants are to-day determined. There would be no difficulty with a young "Blue Gum" on his table, for the teaching botanist to illustrate a variety of leaf characteristics, considered constant and as specific distinctions in other genera. And when the flowering age comes, the adult tree demurely abandons these early inconstancies. In thrifty growing specimens, the young *E. globulus* has a four-sided stem like the labiates, with sharp thin extensions at the corners. The leaves like those of our own deciduous trees, present the upper side to the sunlight, with one side, as a matter of course in the shade. They are sessile, with the base notched or heart-shaped, and they are opposite, thus the ears or lobes of the notch of one leaf lap or lie upon the corresponding parts of its fellow opposite, looking at a little distance as if they might be perfoliate, much as appear the upper leaves of the *Lonicera* or Woodbine. Now in the adult tree the leaves are long petiolate, and very long lanceolate. They are also alternate, and to crown the eccentricity of habit, they are arranged edgewise to the sun-light; that is, the upper and the under plane of the leaf are equally exposed to the sun. In dried specimens before me from Santa Barbara, Cal., I find that these great lanceolate leaves are decidedly falcate, and the queer thing is that the concave edges of these scythe-like leaves, are invariably set uppermost. It is observable, too, that while the leaves of the young individuals are glabrous and dark green above, and the undersides are pale, and a little glaucescent, and the mid rib is of course most prominent below, and the resin glands most conspicuous there these conditions disappear in the leaves of the older tree. Now the glabrous-green has gone and both sides of the leaf are of a whitish hue, and the glands are equally discernable on either side—and strange indeed! the mid-rib and the cardinal veins are nearly equally prominent on either side of the leaf.

The growth of this Blue Gum is truly astonishing. In May of this year Dr. R. E. Kunze, of New York, set a plant two feet high, taken from a conservatory, in his back yard. On the 10th of October it was about 12 feet high! Allowing the proper time for it to rally from the shock of transplanting and change of place, it must have averaged an inch of growth per day.—SAMUEL LOCKWOOD, *Freehold, N. J.*

BRYOLOGICAL NOTES. BY C. F. AUSTIN.—*TRICHOSTOMUM* ? *SUBDENTICULATUM*, n. sp.—Humile, fusco-viride; foliis siccitate involuto-crispatis humiditate patentibus e basi angustata canaliculata caulem ad $\frac{3}{4}$ -amplectente late elliptico-oblongis non nullis convoluto-concavis aliis planiusculis, margine nec recurva nec crenulata versus basin late undulata versus apicem obtuse mucronatam minutissime denticulata, dorso minutissime papilloso, costa valida flavesciente vel subrufa lævi percurrente,